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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/635,636	08/06/2003	Mark Haines	200210233-1	8480

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EXAMINER

MRUK, GEOFFREY S

ART UNIT PAPER NUMBER

2853

DATE MAILED: 02/14/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/635,636

Applicant(s)

HAINES ET AL.

Examiner

Geoffrey Mruk

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 21 November 2005.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-10, 12 and 13 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-10, 12, and 13 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 06 August 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

Terminal Disclaimer

The terminal disclaimer filed on 21 November 2005 disclaiming the terminal portion of any patent granted on this application, which would extend beyond the expiration date of US application number 10/635,409 has been reviewed and is accepted. The terminal disclaimer has been recorded.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-8, 12, and 13 are rejected under 35 U.S.C. 102(b) as being anticipated by Arashima et al. (US 5,481,289).

With respect to claim 1, Arashima discloses a filter (Fig. 7, elements 63, 70) for a printhead assembly (Fig. 3), the filter comprising:

- a frame (Fig. 7, element 19) having a first face (Fig. 7, element 94) and a second face opposite the first face (Fig. 7, element 52), and
- an opening (Fig. 3, element 69) formed therein communicated with the first face and the second face;

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- separate filter material (Fig. 7, elements 63, 70) provided on each the first face and the second face of the frame, and enclosing the opening of the frame (Column 10, lines 55-61); and
- a fluid fitting (Column 6, lines 47-49, i.e. press fit) associated with the frame, the fluid fitting including a fluid port offset from the frame and a fluid passage (Fig. 7, volume of element 52) communicated with the opening of the frame and the fluid port.

With respect to claim 2, Arashima discloses the filter material (Fig. 7, elements 63, 70) is secured (thermal bond) to the first face (Fig. 7, element 94) and the second face (Fig. 7, element 52) of the frame around a perimeter of the opening (Column 10, lines 55-61).

With respect to claim 3, Arashima discloses the filter material (Fig. 7, elements 63, 70) has a mesh size in a range of approximately 2 microns to approximately 20 microns (Column 11, lines 1-11).

With respect to claim 4, Arashima discloses the filter material (Fig. 7, elements 63, 70) is adapted to allow liquid ink to pass there through (Column 11, lines 1-11), and wherein the filter material is adapted to prevent air from passing there through when the filter material is wetted by the liquid ink (Column 1, 60-67).

With respect to claim 5, Arashima discloses the fluid passage (Fig. 7, volume of element 52) of the fluid fitting (Column 6, lines 47-49, i.e. press fit) is adapted to direct air (Column 7, lines 6-20) from the fluid port of the fluid fitting to the opening of the frame (Fig. 7, element 71).

With respect to claim 6, Arashima discloses the filter (Fig. 7, elements 63, 70) material is adapted to trap air within the opening of the frame (Column 1, 60-67).

With respect to claim 7, Arashima discloses the fluid port (Fig. 10, element 52) of the fluid fitting (Column 6, lines 47-49, i.e. press fit) has a longitudinal axis, and wherein the frame (Fig. 10, element 19) is oriented substantially parallel with the longitudinal axis of the fluid port.

With respect to claim 8, Arashima discloses the fluid passage (Fig. 7, volume of element 52) of the fluid fitting has a surface oriented at an angle to the longitudinal axis of the fluid port (Fig. 7, element 52).

With respect to claim 12, Arashima discloses the frame has a substantially rectangular shape (Fig. 10, element 19), and wherein the fluid port (Fig. 10, element 52) of the fluid fitting extends from a side of the substantially rectangular shape.

With respect to claim 13, Arashima discloses the frame (Fig. 10, element 19) includes at least one separator (Fig. 10, element 94) extending within the opening of the frame between opposite sides of the substantially rectangular shape.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 9 and 10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Arashima (US 5,481,289) in view of Lattuca et al. (US 6,398,354 B1).

With respect to claims 9 and 10, Arashima discloses the fluid passage (Fig. 7, volume of element 52) of the fluid fitting has a surface oriented at an angle to the longitudinal axis of the fluid port (Fig. 7, element 52).

However, Arashima fails to disclose

- the angle is approximately a right angle and
- the angle is an acute angle.

Lattuca discloses a printhead apparatus (Fig. 1) where the fluid passage (Fig. 9, element 110) of the fluid fitting (Fig. 9, element 86) has a surface (fig. 9, element 88) oriented at an angle to the longitudinal axis of the fluid port (Fig. 9, element 86), where

- the angle is approximately a right angle (Fig. 6, angle between elements 86 and 88; Column 4, line 30, i.e. cylindrical tower) and
- the angle is an acute angle (Fig. 9, angle between elements 86 and 88; Column 5, lines 45-60).

At the time of the invention, it would have been obvious to one of ordinary skill in the art to use the filtration device disclosed by Lattuca in the ink supply mechanism of Arashima. The motivation for doing so would have been "to assist in air removal from the filtered ink flow path 110 which may accumulate when the ink cartridge is run dry and/or upon replacement of the ink cartridge" (Column 5, lines 53-56).

Response to Arguments

Applicant's arguments with respect to claim 1 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

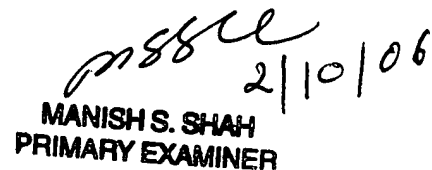
Any inquiry concerning this communication or earlier communications from the examiner should be directed to Geoffrey Mruk whose telephone number is 571 272-2810. The examiner can normally be reached on 7am - 330pm.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Stephen Meier can be reached on 571 272-2149. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

GSM
2/8/2006



MANISH S. SHAH
PRIMARY EXAMINER